

"Upon stripping the shoulder the very remarkable symptoms of dislocation backwards were at once readily perceived. In place of the natural rounded prominence in front, there was a deep depression or pit, into which the finger could be pressed; there was flattening of the shoulder on the outer side, below the acromion, and a large rounded prominence was felt at the back of the scapula, below the spine. This prominence was subcutaneous, and was easily ascertained to be the head of the bone, upon rotation of the arm. The elbow projected forwards and a little out from the side; the axis of the limb ran from the prominence above mentioned downwards and forwards; the length of the limb, from the tip of the acromion to the point of the elbow, was not altered. The patient was either unable or unwilling to attempt motion of any kind, and when desired to do so she moved the scapula on the trunk. We were, however, able to rotate the arm freely, to approximate it to the side, and to bring it forward. We could not raise it or bring it in a backward direction without rotation of the scapula. In our manipulations we experienced no difficulty from the occurrence of tumefaction or effusion, owing to the recent nature of the accident, nor did the patient complain of much pain. The dislocation was readily reduced. Mr. George Porter made extension by raising the arm to a right angle with the body, and drawing it outwards and slightly forwards, at the same time rotating it. I fixed the scapula with the palms of my hands, and made pressure on the displaced head of the bone; with very slight effort the bone returned to its natural place, and the symptoms of dislocation disappeared. The patient recovered the use of her arm at once, and did not return to the hospital.

"All surgical authorities are agreed upon the extreme rarity of this form of dislocation—not more than eight or ten being on record. Boyer attributes this rarity to the fact that muscular action has no part in bringing about this dislocation. According to him the accident occurs by a fall on the side with the arm extended and advanced; and it will require a very considerable force to be applied to the elbow before the bone can be thrust outwards or backwards; it is manifest, however, even when the accident occurs in the manner described by Boyer, that the action of the muscles, which attach the scapula to the trunk, largely assist in producing the dislocation. By these muscles the scapula is fixed, while at the same moment the humerus is converted into a powerful lever of the first order. Its centre rests on the side of the chest, the violence is applied at the elbow, and it is only when this violence is sufficient to rupture the capsule, and overcome the action of the muscles about the capsule, that dislocation can occur. The muscles which fix the scapula assist in causing the accident, for if the glenoid cavity were not fixed by them, the violence applied to the elbow would cause it to follow the head of the bone in its movements, and render dislocation impossible. The possibility of dislocation by a direct blow on the front of the shoulder does not appear to have struck Boyer, nor do I well know how to account for its producing dislocation in the present instance, unless by supposing that the glenoid cavity was altered by age and rheumatic disease. It is well known, these causes are sufficient to flatten the cavity, and give it a greater breadth in the backward direction. In the *London Medical Gazette* for 1833 a somewhat parallel case will be found, in which an old woman, falling on the front of the joint, dislocated it backwards. From the feel of the joint, when reduced, both Mr. Porter and I were of opinion that the dislocation would be easily reproduced; the patient, however, never returned to the hospital, and we are ignorant of her subsequent history. I have thought it right to put the case on record, as the accident is rare; but I regret that I am not able to throw more light upon what may be called the mechanism of its occurrence."

28. *Treatment of Fractures by the Stretched Apparatus.*—BENJAMIN HUNT has published, in the *Association Medical Journal*, reports of thirty cases of fracture, taken indiscriminately from amongst many others treated in like manner at the Queen's Hospital, Birmingham. We present a tabular view of these cases, with the remarks of the author:—

Case.	Name.	Age.	Fracture.	Date of accident.	Treatment commenced from time of accident.	Length of treatment.	Confinement to bed under treatment.	Result, etc.
1	Greenway	42	External and internal malleoli	Feb. 28, 1853	Mar. 4, 1853	3 weeks	2 days	Cured.
2	Tustin	53	Compound comminuted of tibia and fibula	Apr 18, 1854	Immediately	6 weeks and 3 d'ys	3 days	Cured.
3	Ady	54	Oblique of the femur	Jan. 10, 1854	7 hours	3 weeks	3 days	Cured.
4	Abel Cann	11	Transverse femur	Apr 11, 1854	Immediately	6 weeks	3 days	Cured.
5	Taylor	35	Pott's fracture	Apr 13, 1854	Do.	3 weeks	2 days	Cured.
6	McCarthy	19	Femur at lower third	Aug. 24, 1853	Do.	6 weeks	3 days	Cured.
7	Coyle	58	Femur near neck	Nov. 2, 1853	Do.	6 weeks	1 month	Cured. Shortened half an inch.
8	Wilkinson	25	Compound of femur	Oct. 8, 1853	Do.	2 months	..	Amputation. Recovery.
9	R. M.	77	Femur	Oct. 3, 1853	Do.	6 weeks	1 week	Cured.
10	M. A. Girling	7	Do.	Feb. 21, 1854	Do.	1 week and 5 d'ys	..	Cured.
11	Parsonage	3	Do.	Jan. 20, 1854	Do.	1 month	..	Cured.
12	Tyerluck	11	Do.	Aug. 6, 1853	Do.	7 weeks	..	Cured.
13	E. Wilson	6	Do.	Apr 27, 1854	Do.	3 weeks and 2 d'ys	..	Cured.
14	S. A. Field	5	Do.	May 5, 1854	Do.	3 weeks and 5 d'ys	..	Cured.
15	G. W.	44	Tibia and fibula	Dec. 27, 1853	10 hours	6 weeks	2 days	Cured.
16	H. Robins	34	Do.	Dec. 25, 1853	Immediately	6 weeks	2 days	Cured.
17	Reil	59	Do.	Apr 17, 1854	Do.	6 weeks	1 week	Cured.
18	G. Clarke	14	Do.	Aug. 12, 1854	Do.	1 month	1 day	Cured.
19	T. Dale	17	Do.	Sept. 30, 1853	Do.	3 weeks	1 day	Cured.
20	Mrs. S.	50	Do.	Mar. 14, 1854	Do.	6 weeks	2 days	Cured.
21	T. W.	41	Patella	Mar. 30, 1854	Do.	8 weeks	2 days	Cured. Union hæmorrhous.
22	J. W.	31	Fibula	Oct. 10, 1853	24 hours	3 weeks	1 day	Cured.
23	Sherriff	50	External malleolus	Jan. 8, 1854	Immediately	3 weeks	1 day	Cured.
24	E. Pattison	..	Inner malleolus	Dec. 25, 1853	Do.	3 weeks	3 days	Cured.
25	H. Hunt	65	Pott's fracture	Do.	3 weeks	2 days	Cured.
26	R. P.	54	External malleolus	May 1, 1854	Do.	2 weeks	2 days	Cured.
27	S. P.	56	Fibula	Aug. 4, 1853	Do.	3 weeks	2 days	Cured.
28	Allsopp	..	Compound radius and ulna	Jan. 25, 1853	Do.	1 month	None	Cured.
29	T. D.	45	Olecranon	May 17, 1854	Do.	3 weeks	None	Cured.
30	H. R.	25	Compound of tibia and fibula	Jan. 7, 1853	2 months	3 months	3 days	Cured. Nine-teen pieces of bone came away.

Remarks.—In the above table, it will be seen that the ages vary from early childhood to extreme old age; from which it may be inferred that the method is adapted for any age; indeed, I have applied the apparatus, in treating a broken thigh, to a child aged sixteen months, and for the same injury to a woman above eighty years.

Under the head of "Fracture" in the table, it will be seen that the femur was the seat of injury in eleven cases; the tibia and fibula together, in eight; the fibula only, in four; the malleoli, either singly or together, in four; the patella, in one; the olecranon, in one; and the radius and ulna, in one. The bones of the lower extremities sustained the injury in every case but two, which may be accounted for from my not taking notes of cases which did not require admission into the hospital; and fractures occurring to the bones of the upper extremity generally do not; yet I have employed the apparatus in treating fracture of the arm and forearm as often as of the leg and thigh, and can as strongly recommend it in the one as the other.

It will be observed that, in the majority of cases, the treatment was commenced immediately after the receipt of injury, which may be called the time of election; neither inflammation nor swelling have supervened, and rarely, if ever, take place after the apparatus has been applied. When, however, several hours or even days have elapsed since the accident, and the limb, in the absence of treatment, shall have become swollen and inflamed, the application of the apparatus is usually followed by the subsidence of both these conditions.

The length of treatment in the above cases does not indicate the period of perfect union in every instance; the apparatus being worn beyond that time, for the more complete consolidation of the fragments. Judging, however, from these and other cases similarly treated, union of the broken bone takes place in the following order; namely, the femur, in six weeks; the tibia and fibula, in four; the fibula or tibia only, in two to three; the malleoli, in about the same time; the humerus, in four; and the bones of the forearm, either singly or together, in about three. These remarks refer to solution of continuity of the bone in the adult healthy subject; in childhood, the fragments unite much sooner; while old age, pregnancy, mercurialism, and cachectic states of the system, impede if not altogether suspend union.

Confinement to bed is perhaps the most irksome condition required of the patient under treatment for fracture of a bone of the lower extremity, not to mention the impairment of health it induces. Reference to the above table proves that this may be limited to two or three days, excepting while the fracture is complicated with injury to other parts of the body; and even then the patient may, in most cases, be placed upon a couch during the day.

The results are almost uniformly successful, the bones having united without shortening, and without deformity, in all the cases but three. Of these, one was a very severe compound fracture of the thigh, occurring to a man of weak constitution, which terminated in amputation of the limb; another was fracture of the femur close to the trochanter, and accompanied with severe contusions of the whole side of the body, in which case a cure was effected with half an inch of shortening; in the third and last, the injury, a compound fracture of the leg, had existed ten weeks before the apparatus was applied, and by this time necrosis of the bone had taken place, and the limb was greatly deformed; the modern method was only adopted, therefore, to save the limb, and in this it succeeded.

In concluding these remarks, I may observe that every case of fracture which required mechanical aid during the time I was Resident Surgeon at the Queen's Hospital, a period of one year and nine months, was treated by the modern method here recommended, and with equally good results. I must not, therefore omit to express my acknowledgments to the surgeons of that institution, Mr. Sands Cox, Mr. G. B. Knowles, and Mr. Langston Parker, for having permitted me to make such an extended trial of this plan.

29. *Injury of the Perineum; Rupture of the Urethra with extravasation of Urine.* Mr. J. S. FLETCHER records (*Association Medical Journal*, Sept. 21, 1855) a highly interesting case of this accident, which presents some very unusual features. We transfer it to our pages, with the instructive practical remarks of the author.

"On the 27th December, 1852, I was called to Mr. Smith, aged 29 years, of nervous and bilious temperament. On returning from a committee meeting a short time previously, he had gone into his own yard to micturate, when passing over a trap-door, having one foot on the door, and the other on the flag on which it rested, it gave way, and let him down, falling with his perineum on the edge of the hard flag. I saw him in fifteen minutes after the accident. He had then passed a large quantity of blood and urine, and was still bleeding very freely from the urethra; he was faint on standing, and had some pain in the perineum, but no swelling, and but little tenderness, without any desire to pass urine. I made an attempt very gently to pass the catheter, but could not succeed, as it was obstructed near the prostate. I withdrew it, and ordered tepid fomentations, with an opiate; and saw him again in about two hours. The bladder was now much distended, causing considerable pain, and strong desire to pass urine. He had no swelling in the perineum. I again tried to pass the catheter, and succeeded, by using a large instrument with the utmost gentleness, keeping it in the median line, and against the upper wall of the urethra. I could distinctly feel, however, that it passed through a long track of apparently torn passage. The bleeding had continued very free. I drew away twelve ounces of normal urine, unmixd with blood. The patient was